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**TRANSMITTAL  
FORM**

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Total Number of Pages in This Submission

18

Application Number

10/691,286

Filing Date

October 22, 2003

First Named Inventor

Thomas C. Chuang

Art Unit

3629

Examiner Name

Ruhl

Attorney Docket Number

0031000

**ENCLOSURES (Check all that apply)**

Fee Transmittal Form



Fee Attached



Amendment/Reply



After Final



Affidavits/declaration(s)



Extension of Time Request



Express Abandonment Request



Information Disclosure Statement



Certified Copy of Priority Document(s)

Reply to Missing Parts/  
Incomplete ApplicationReply to Missing Parts  
under 37 CFR 1.52 or 1.53

Drawing(s)



Licensing-related Papers



Petition

Petition to Convert to a  
Provisional Application

Power of Attorney, Revocation



Change of Correspondence Address



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Request for Refund



CD, Number of CD(s) \_\_\_\_\_

☐ Landscape Table on CD

After Allowance Communication to TC

Appeal Communication to Board  
of Appeals and InterferencesAppeal Communication to TC  
(Appeal Notice, Brief, Reply Brief)

Proprietary Information



Status Letter

Other Enclosure(s) (please identify  
below):

Remarks

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT**

Firm Name

Law Office of Thomas Chuang

Signature

Printed name

Thomas C. Chuang

Date

Reg. No.

44,616

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Typed or printed name

Date

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# FEE TRANSMITTAL

## For FY 2005

☒ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 250

### Complete if Known

Application Number	10/691,286
Filing Date	October 22, 2003
First Named Inventor	Thomas C. Chuang
Examiner Name	Ruhl
Art Unit	3629
Attorney Docket No.	0031000

### METHOD OF PAYMENT (check all that apply)

☒ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): \_\_\_\_\_

☐ Deposit Account Deposit Account Number: \_\_\_\_\_ Deposit Account Name: \_\_\_\_\_

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

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### FEE CALCULATION

#### 1. BASIC FILING, SEARCH, AND EXAMINATION FEES

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

#### 2. EXCESS CLAIM FEES

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180
<b>Total Claims</b>	<b>Extra Claims</b>	<b>Fee (\$)</b>
- 20 or HP = _____ x _____ = _____		
HP = highest number of total claims paid for, if greater than 20.		
<b>Indep. Claims</b>	<b>Extra Claims</b>	<b>Fee (\$)</b>
- 3 or HP = _____ x _____ = _____		
HP = highest number of independent claims paid for, if greater than 3.		

#### 3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
- 100 = _____ / 50 = _____ (round up to a whole number) x _____ = _____				

#### 4. OTHER FEE(S)

Non-English Specification, \$130 fee (no small entity discount) Fees Paid (\$)

Other (e.g., late filing surcharge): Brief in Support of Appeal 250

<b>SUBMITTED BY</b>		
Signature		Registration No. (Attorney/Agent) 44,616
Name (Print/Type)	Thomas C. Chuang	Telephone 415.722.1071
		Date 1/10/06

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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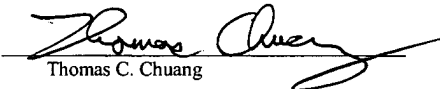


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Thomas C. Chuang

Application Number : 10/691,286  
Title : SYSTEM AND METHOD FOR RENTING OR  
PURCHASING GOODS VIA A COMMUNICATIONS  
NETWORK  
Applicant : Thomas C. Chuang  
Filed : October 22, 2003  
TC/A.U. : 3629  
Examiner : Dennis William Ruhl  
  
Docket Number : 0031000

Commissioner for Patents  
P.O. Box 1450  
Alexandria VA 22313-1450

**APPEAL BRIEF**  
**IN SUPPORT OF APPELLANTS' APPEAL**  
**TO THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Sir:

This brief is submitted in support of this Appeal from a Final Office Action of the Examiner mailed 13 July 2005 and a Final Decision (Advisory Action Before Filing of an Appeal Brief) of the Examiner mailed 28 September 2005. Applicant respectfully requests consideration of this Appeal by the Board of Patent Appeals and Interferences for allowance of the above-captioned patent application.

01/12/2006 HDEHESS1 00000045 10691286

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## **I. REAL PARTY IN INTEREST**

The real party in interest is Thomas C. Chuang, a person residing at 2201 Laguna St., #408, San Francisco, California 94115.

## **II. RELATED APPEALS AND INTERFERENCES**

Appellant is not aware of any related appeals or interferences.

## **III. STATUS OF CLAIMS**

Claims 23, 24, 28, and 29 are currently pending. Claims 23, 24, 28, and 29 have been finally rejected.

## **IV. STATUS OF AMENDMENTS**

There are no currently pending amendments.

## **V. SUMMARY**

### **A. Summary of Invention**

The present invention relates to a computer implemented method and apparatus for managing inventory of a disk rental system.

The present invention includes functionality for allowing users to search, browse, rent, and purchase from an online catalog of DVDs. Using a rental queue feature of the site, users can add and remove DVDs from a rental queue which is maintained over multiple sessions. Selected DVD titles are shipped to the user by the web site (physical actions are performed by a person associated with the web site). The user returns the DVD title after viewing by shipping it back to the website for check in. Specification Paragraph 26, lines 1-7.

The present invention allows system owners to leverage off of existing rental or sales to generate additional revenues and increase user satisfaction. In an embodiment where a system owner typically rents items, the present invention provides for increased revenues through the sale of items. Specification Paragraph 23, lines 1-4.

In one example, the present invention addresses typical problems a web site renting goods encounters where it either does not acquire enough rental copies to meet initial demand resulting in long customer waits or it acquires too many copies to meet initial demand and is left with extra copies after demand falls. See Specification Paragraph 63, lines 1-4. In other words, the present invention addresses acquiring sufficient inventory and eliminating excess inventory. See Specification Paragraph 21, lines 4-5. In particular, for items with a high initial rental demand the present invention provides an efficient mechanism by which used items are sold when rental demand decreases. Specification Paragraph 23, lines 4-6.

The present invention offers users a convenient mechanism by which to purchase items rented by the user and already in the user's possession. The web site advantageously promotes the sale of used rental copies by offering additional purchase price discounts when there is an excess capacity of inventory. The web site thereby generates additional revenue by promoting the sale of used DVD titles, with promotion increasing when rental demand is decreased. See Specification Paragraph 63, lines 4-10. The present invention allows system owners to improve their rental service by purchasing more items to meet initial demand while still avoiding the problem of excess inventory. Specification Paragraph 23, lines 12-14.

More specifically, the present invention relates to generating a user queue data structure containing a list of disk identifiers. Each disk identifier includes a status identifier. The status identifier indicates one of three statuses: a "checked out" status, "available" status, and "unavailable" status. Specification, Figures 3A and 3B, and Paragraph 70. A database of user queue data structures corresponding to a plurality of users is maintained. Specification Paragraph 37. An optimized purchase price for a disk identifier is generated for disk identifiers with a checked out status. One part of generating the optimized purchase price involves searching the database of user queue data structures to identify the frequency of appearance of the disk identifier in all user queue data structures.

Specification Paragraphs 34, 44, 50-54. Description of the claimed invention in the Specification is described in detail below in response to the Examiner Rejections.

**B. Summary of Rejections**

Claims 23, 24, 28, and 29 stand rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. (Final Office Action mailed 13 July 2005). In particular:

For claim 23 and claim 29, the Examiner alleges that the specification does not disclose the claimed limitations of status identifiers of “available” and “unavailable”.

For claim 23 and claim 29, the Examiner alleges that the specification does not disclose the claimed limitation of “searching all of the user’s data queue structures to identify the frequency of appearance of the disk identifier.

For claim 24, the Examiner alleges that the specification does not disclose that additional packaging is provided to the purchaser.

Claims 23, 24, 28, and 29 stand rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. (Final Office Action mailed 13 July 2005). In particular:

For claim 23, the Examiner alleges that it is not clear how the optimized purchase price is being generated and concludes undue experimentation would be involved to figure out how practice the claimed invention.

Claim 23, 24, 28, and 29 stand rejected 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. (Final Office Action mailed 13 July 2005). In particular:

For claims 23 and 29, the Examiner alleges that the specification makes no mention at all of the status of “available” and “unavailable”.

## VI. ISSUES

Whether claims 23, 24, 28, and 29 comply with 35 U.S.C. 112, first paragraph, and 35 U.S.C. 112, second paragraph.

## VII. GROUPING OF CLAIMS

For the purposes of this appeal, claims 23, 24, 28, and 29 stand or fall together.

## VIII. ARGUMENT

### **REJECTIONS UNDER 35 U.S.C. 112, FIRST PARAGRAPH, AS FAILING TO COMPLY WITH THE WRITTEN DESCRIPTION REQUIREMENT**

The specification discloses the claimed limitations of status identifiers of “available” and “unavailable”

Applicant respectfully points out that the specification describes and illustrates the claimed limitations of “available and “unavailable”.

The terms “availability” and “unavailability” refer to whether a particular disk title selected by the user has been released yet by the movie studios for viewing on DVD. If a disk selected by a user to rent or purchase has not been released by the movie studios, then it is designated as unavailable and is placed in the “awaiting release” list as illustrated in FIG. 3B. Once a movie studio releases a disk for viewing on DVD, it becomes available and is designated as “available” and is placed in the “DVDs in Your Queue” list illustrated in FIG. 3A.

Unavailability status is discussed in the specification, for example, in paragraph 70. In paragraph 70, the specification discloses that the “DVDs awaiting release list 306 contains an ordered list of DVD titles that a user has selected to place on the rental queue that are *not yet available* and are awaiting release”. Specification Paragraph 70, lines 1-3 (emphasis added). Applicant



respectfully asserts that the specification language “not yet available” supports the claim limitation “unavailable” since the two are equivalent in standard English.

Support for the term “available” is found in paragraph 70, which states that “DVD titles are placed at the bottom of the Queue list 304 when they become *available*.” Specification Paragraph 70, lines 4-5 (emphasis added). Support is also found in Paragraph 29, which states that “when a DVD on the upcoming release *becomes available*, it is removed from the upcoming list and placed at the bottom of the rental queue.” Specification Paragraph 29, lines 13-14 (emphasis added).

The specification discloses the claimed limitation of “searching all of the user’s data queue structures to identify the frequency of appearance of the disk identifier

Specification Paragraph 51 recites that “At step 510, the web site evaluates the inventory resources. For the DVD title at issue, the web site determines the number of copies owned by the web site. At step 512, the web site evaluates the inventory use. The rental pattern, both historical and current, of the DVD title *across all users* is evaluated. One output of step 512 is the peak number of copies of the DVD title *checked out* and required to be shipped *from user queues* at a given time.” Specification Paragraph 51 (emphasis added).

The last sentence of Paragraph 51 gives a clear example of how the rental pattern of the DVD title across all users is evaluated. The last two sentences of Paragraph 51 taken together state that one of the outputs of evaluating the rental pattern of a given DVD title across all users is the identifying number of copies of the DVD title (1) checked out and (2) required to be shipped from user queues.

The rental queue is a data structure and associated code which keeps track of items that have been selected by a user for rental. The rental queue is divided into three separate lists based on the status of the DVD selected for rent. A “Checked Out” list keeps track of DVDs in possession of a web site user or in

transit between the user and website. A “DVDs in Queue” ordered list keeps track of DVDs to be shipped to the user when a DVD on the “checked out” list is returned to the web site. Specification Paragraph 27. Thus, Specification Paragraph 51 describes searching user data queues to identify the frequency of appearance of a disk identifier (the number of copies of the DVD title checked out and required to be shipped from user queues).

Thus, Applicant respectfully asserts that the language in paragraph 51 describes “searching all of the user’s data queue structures to identify the frequency of appearance of the disk identifier”.

#### **CLAIM 24**

The specification discloses that the user is queried whether the user wishes to receive additional packaging

The Examiner states in the final office action mailed 7/13//05 that only additional disks are being offered to the user, but not packaging. Examiner states that a product like a disk and packaging that is used to package an article are two entirely different things.

Applicant respectfully submits that the Specification describes that additional packaging is offered to the user that is different from a disk. If the user selects to purchase a used copy of a DVD that the user currently has in his/her possession, the user is given the option of receiving additional packaging associated with the disk. The specification describes an example of additional packaging – the DVD case.

Specification Paragraph 67 states that “If a user selects Purchase Used check box 312, the web site sends web page 400 to the user.” Specification Paragraph 67, line 10. Figure 4 illustrates a web page through which “a user may select not to receive the *DVD title jewel case*”. Specification Paragraph 68, lines 1-2 (emphasis added). Web page 400 displays a discounted purchase price 402 “if the user selects a ‘Do Not Send *Case*’ check box 404”. Specification paragraph 68, line 3 (emphasis added).

**REJECTIONS UNDER 35 U.S.C. 112, FIRST PARAGRAPH, AS FAILING  
TO COMPLY WITH THE ENABLEMENT REQUIREMENT**

The specification describe how the optimized purchase price is being generated and undue experimentation is not involved to figure out how practice the claimed invention

The Examiner states in the Final Office Action that it is unclear how the optimized price is determined after the frequency of occurrence has been determined. Applicant respectfully points out that the specification extensively describes and illustrates the claimed limitation of “generating an optimized purchase price for a disk identifier with a checked out status”.

As pointed out above, one feature of the present invention is to promote the sale of Disk inventory in certain situations. For example, where it is determined that there is an excess capacity of inventory for a particular DVD title, the purchase price of that title is lowered to encourage reduction in inventory. Thus, users with such a title in their possession are encouraged to purchase the title and retain possession.

In accordance with an aspect of the invention, the used purchase price of DVDs in the user’s queue are determined by identifying a baseline purchase price and applying weighted price modification factors to calculate a display offer. For example, in one embodiment described below, the sales service determines whether there is currently an excess capacity of stocked DVDs relative to user rental patterns. Specification Paragraph 34.

For each DVD item on the queue list, the web site calculates a used DVD purchase price to display to the user when the user is viewing the queue list. Specification Paragraph 44.

Figure 5B illustrates the price generation process for when a user selects to purchase a used DVD title that is in the user’s checked out list or rental queue. The web site begins with a baseline used price for the DVD title that has been

previously set. In an embodiment of the invention, the baseline used price for a DVD title is the wholesale price paid by the web site plus the desired profit. In another embodiment of the invention, the baseline used price may be determined in part by current market rates for the used DVD title. One of ordinary skill in the art will recognize that numerous methods may be used to set the baseline used price. Specification Paragraph 50.

At step 510, the web site evaluates the inventory resources. For the DVD title at issue, the web site determines the number of copies owned by the web site.

At step 512, the web site evaluates the inventory use. The rental pattern, both historical and current, of the DVD title across all users is evaluated. One output of step 512 is the peak number of copies of the DVD title checked out and required to be shipped from user queues at a give time. Specification Paragraph 51.

At step 514, the web site determines whether an excess capacity threshold has been met. The excess capacity threshold is a previously calculated variable that the web site utilizes to determine whether an excess capacity condition exists.

In an embodiment of the invention, an excess capacity condition for a DVD title exists when the total number of copies of the DVD contained in the inventory resources exceeds inventory use. Various formulations can be used to determine whether an excess capacity exists. For example, the web site may set an excess capacity threshold that tolerates a predetermined number of short wait or long wait situations while still returning an excess capacity determination. Specification Paragraph 52.

If yes at step 514, at step 516, an excess capacity discount price modification factor is calculated and applied to the baseline used price. In an embodiment of the invention, the modification factor reduces the baseline used price by 10 to 30 percent. In an embodiment of the invention, the reduction is proportional to the extent of excess capacity. Specification Paragraph 53.

The Examiner states in the Final Office Action mailed 13 July 2005 that it is not described how the optimized price is determined after the frequency of

occurrence has been determined. The Examiner gives the example that if it is determined that the frequency for a given disk is 150 times as opposed to another disk that is 50 times, it is unclear how this is used to generate the optimized purchase prices from this information. Final Office Action, page 6. However, as the Applicant has explained, it is not important the frequency of appearance of a given disk with respect to the frequency of another disk. Rather, it is the frequency number of the disk across user queues (inventory use) relative to the total number of copies of that disk in the web site inventory (inventory resources), which is used to determine whether an excess capacity threshold has been met and calculate the purchase price.

#### **REJECTIONS UNDER 35 U.S.C. 112, SECOND PARAGRAPH**

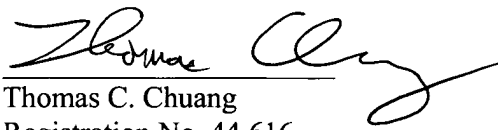
Claim 23 and 29 particularly point out and distinctly claim the subject matter which applicant regards as the invention

Examiner alleges that with respect to claims 23 and 29 the specification makes no mention at all of the status of “available” and “unavailable” and therefore fails to particularly point out and distinctly claim the subject matter which applicant regards as the invention. For the reasons described above, Applicant respectfully submits that the specification describes the meaning of the terms “available” and “unavailable”.

## IX. CONCLUSION

For the foregoing reasons, Appellants respectfully request reversal of the Examiner's rejections as set forth in the Final Office Action and subsequent Advisory Action and request that the Board direct allowance of all pending claims of the application.

Respectfully submitted,

By   
Thomas C. Chuang  
Registration No. 44,616

Date: 10 January 2006

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**X. CLAIM APPENDIX**  
**Pending Claims 23, 24, 28, 29**

23. A computer implemented method for managing inventory of a disk rental system comprising:
- generating a user queue data structure comprising:
    - a list of ordered disk identifiers associated with user selected disks;
    - a status identifier for each disk identifier, the status identifiers including a checked out status, available status, and unavailable status;
  - maintaining a database of user queue data structures corresponding to a plurality of users;
  - generating an optimized purchase price for a disk identifier with a checked out status comprising searching the database of user queue data structures to identify the frequency of appearance of the disk identifier in all user queue data structures; and
  - storing the optimized purchase price in the user queue data structure and displaying the optimized purchase price to the user.
24. The method of claim 23, further comprising:
- receiving a user request to purchase a disk identifier with a checked out status; and
  - sending a query to the user determining whether the user wishes to receive additional packaging associated with the disk identifier.
28. The method of claim 23, further comprising generating and sending an email notification to a user containing an optimized purchase price for a disk with a checked out status identifier.
29. A computer readable storage medium storing instructions that when executed by a computer cause the computer to perform a method for managing inventory of a web-based disk rental system comprising, comprising:

generating a user queue data structure comprising:

a list of ordered disk identifiers associated with user selected disks;

and

a status identifier for each disk identifier, the status identifiers

including a checked out status, available status, and unavailable status;

maintaining a database of user queue data structures corresponding to a plurality of users;

generating an optimized purchase price for a disk identifier with a checked out status comprising searching the database of user queue data structures to identify the frequency of appearance of the disk identifier in all user queue data structures; and

storing the optimized purchase price in the user queue data structure and displaying the optimized purchase price to the user.



## **XI. EVIDENCE APPENDIX**

None.

## **XII. RELATED PROCEEDINGS APPENDIX**

None.